AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning on page 2, line 21 with the following amended paragraph:

Accordingly, there is a need for a non-contact position sensor that provides accurate and reliable position sensing that may be cost-effectively produced and installed.

Please replace the paragraph beginning on page 7, line 3 with the following amended paragraph.

Turning to FIG. 1, there is illustrated a sectional view of one exemplary embodiment of a sensor system 100 consistent with the invention. The illustrated system generally includes an automobile seat rail system 101, including a moving upper rail 102 and a stationary lower rail 103, and a sensor assembly 104. The sensor assembly generally includes a mating connector 106 and a sensor portion 108. As shown in detail in FIG. 4, the sensor portion may include a Hall Effect integrated circuit 110 positioned on a PCB 112 and a magnet 114 disposed adjacent the Hall Effect I.C. The sensor assembly may be mounted by a variety of means, e.g. by appropriate fasteners 116 (FIG. 6), to the upper rail for movement therewith, as shown for example in FIGS. 1-3. An air gap ~~Gis~~ G is established between the sensor assembly and the rail to which it is not mounted, e.g. the stationary lower rail in the illustrated embodiment. In one embodiment, the air gap G may be between about 0.5mm to 2.75mm. It is to be understood that, although the sensor in the illustrated embodiment is shown as being mounted to the movable upper rail 102, it could alternatively be mounted to the stationary lower rail 103.

Please replace the brief description of FIGS. 20 and 21 on page 6, lines 8-11 with the following amended brief description.

FIG. 20 is a side view of a movable rail having openings pierced into the movable rail after construction of a seat track assembly to mate with openings and projections in an associated second housing of an associated sensor assembly; ~~and~~

FIG. 21 is a perspective view of seat position system including a seat frame and sensor assembly consistent with the invention~~.~~;

Please insert the following new brief description of FIGS. 22 and 23 after the description of FIG. 21, which begins on page 6, line 11.

FIG. 22 is a schematic view showing the magnetic field lines associated with a magnet having a C-shaped cross-section when the sensor is proximate the rail; and

FIG. 23 is a plot of the magnetic field along the magnet height for a magnet having a C-shaped cross-section;

Please insert the following new paragraph before the paragraph beginning on page 17, line 17 of the specification as originally filed.

Also as shown in the exemplary embodiment, the magnet may have a generally C-shaped cross-section. Referring to FIG. 22, a schematic view of the magnetic field lines associated with

a magnet 302 having a C-shape cross-section when an activating rail 303 is proximate the sensor. FIG 23 is a plot of the magnetic field along the magnet height for the magnet configuration shown in FIG. 22 where the field is measured along a line L corresponding to the location of the hall sensor. It can be seen from the plot that the difference in the magnetic field when an activating rail 303 is proximate the magnet 302 and when no rail is proximate the magnet is especially pronounced between a height of about 3 to 5 mm above the bottom of the magnet. The region of the most pronounced difference in the strength of the magnetic field may be an especially advantageous region for placing the Hall device. However, as indicated by the plot, depending upon the sensitivity of the Hall device, the Hall device may suitably placed at other heights from the bottom of the magnet as well.